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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/516,959	12/03/2004	Tatsuo Shimizu	042-201	6172
35870	7590	03/22/2007		
APEX JURIS, PLLC TRACY M HEIMS LAKE CITY CENTER, SUITE 410 12360 LAKE CITY WAY NORTHEAST SEATTLE, WA 98125			EXAMINER WILLS, MONIQUE M	
			ART UNIT	PAPER NUMBER
			1745	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		03/22/2007	PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

Application No.

10/516,959

Applicant(s)

SHIMIZU ET AL.

Examiner

Monique M. Wills

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 09 January 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 5-10, 12 and 13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 5-10, 12 and 13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 March 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Request for Continued Examination*

The request filed on January 10, 2007 for a Request for Continued Examination (RCE) under 37 CFR 1.114 based on parent Application No. 10/516,959 is acceptable and a RCE has been established. An action on the RCE follows.

The following rejections are overcome:

- Claims 5-10 & 12-13 under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement.
- Claims 5-6 & 9-10 under 35 U.S.C. 102(e) as being anticipated by Vitins et al. U.S. Patent 6,667,131.
- Claims 7-8 under 35 U.S.C. 103(a) as being unpatentable over Vitins et al. U.S. Patent 6,667,131 as applied to claims 5 & 9-10 above, and further in view of Goda et al. U.S. Pub. 2003/0143466.

The claims are newly rejected as follows:

*Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5-10 & 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kudo et al. U.S. Pub. 2002/017869 in view of Johnson et al. U.S. Pat. 7,049,031.

With respect to claims 5 & 9, Kudo teaches a lithium rechargeable battery (par. 29) comprising: a current collector (par. 35) and a conductor-mixed electrode active material, including a mixture of acetylene black conductive material obtained by a ball mill without a binder. See paragraphs 19 & 33. The electrode active material is coated on a current collector (par. 35). Further concerning claim 9, a binder is mixed with the active material to form the positive electrode structure (par. 35). With respect to claim 6, the conductive material is carbon (par. 15). With respect to claim 8, the binder embraces the instant anchor material between the current collecting material and the electrode layer (par. 35).

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Kudo does not expressly disclose: a lithium manganate active material (claims 6 & 10); a rough collector surface (claim 7); or conductive material bonded in flocculent form on the surface (claims 12 & 13).

Johnson teaches it is well known to employ lithium manganate as positive material for lithium secondary cells, because they do not contribute to the impedance rise of electrochemical cycled lithium -ion cells (col. 1, lines 50-60).

Kudo and Johnson are analogous art, because they are from the same field of endeavor namely, fabricating lithium secondary cells.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the instant was made to employ the lithium manganate of Johnson, in the lithium cell of Kudo, because the material does not contribute to the impedance rise of electrochemical cycled lithium -ion cells. Kudo suggest the use of lithium oxides (par. 14).

With respect to the rough collector surface, it would have been obvious to one of ordinary skill in the art at the time the instant invention was made to employ a rough surface on the electrode of Kudo, in order to increase conductivity of the current collector. The skilled artisan recognizes that roughing the surface increases the surface area, therefore improving electrical conductivity.

With respect to the conductor material being bonded in flocculent form on the surface of the, it would be reasonable to expect the electrode material to take flocculent form, because the material is made by the same method set forth by applicant. Furthermore, the material composition is identical to applicant.

### *Response to Arguments*

Applicant's arguments, with respect to the prior pending rejections have been fully considered and are persuasive. The rejections have been withdrawn.

### *Conclusion*

If attempts to reach Examiner by telephone are unsuccessful, the Examiner's supervisor, Patrick Ryan, may be reached at 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.


Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

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Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MW

3/17/07



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